Disce quasi semper victurus; vive quasi eras moritarus.

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Contrasts.

Who talks to me of youth? Have I not known All sorrows but disgrace? danger and woe, The wanderings of Israel, and the slow Strain of a mind that seeks for truth alone. I seem bewildered in a land where moan The primal needs, dim shapes of coming doom, And occult faiths that darken to their tomb, With voices of to-day across them blown. So, I remember—when the Indian fires Sprang by the Platte and over Smoky hill—We came to pleasant homes secure from ill, Bright with the spring on all the village spires. Glad with returning hosts, and heard the guns Thunder their joy for Richmond's fallen sons.

MARION MUIR.

What the Church Has Done for Science.*

"History, during the last three hundred years, has become a grand conspiracy against the truth." So said the illustrious Count Joseph de Maistre; and we might reiterate his statement as emphatically as the learned author made it when he stood before the world as the champion of truth and religion. History, since the period of the so-called Reformation, has been perverted; and hence the many charges one continually sees preferred against the Church whenever there is question of her relation to the world of thought and intellectual advancement. She has been decried as the enemy of liberty and civilization, and yet it is to her that we are indebted for both. She has been declared inimical to the progress of art and literature, albeit the greatest masterpieces in every department of literature and art are the immediate results of her inspiration and fostering care. She has been proclaimed the open enemy of science; and, notwithstanding all that has been done during the last fifty years, in every department of historical inquiry, showing how groundless such an accusation is, the impression is still abroad that the Church has always been opposed to science, and has ever, during her entire history, strenuously and systematically discouraged its study and contravened its progress. But this impression, although originally

due to a falsifying of the facts of history, is now a result rather of the declamations and diatribes pronounced against the Church by those of our modern "advanced thinkers" whose systems she has condemned as opposed to true philosophy, and whose science she has sifted, and declared to contain nothing more than the chaff of theory and fanciful speculation. There is, then, no more truth in the charge that the Church has been inimical to scientific advancement than that she is opposed to liberty and civilization, or to the cultivation of art and literature.

As a matter of fact, it would be less difficult, in the light of authentic history, to tell what the Church has not done for science than to state what she has done. To tell what the Church has done would be to write the history of every branch of science—to follow each branch from its first beginnings to the highly-developed state to which it has attained. It would prove—and prove beyond quirk or quibble—the beautiful statement of the Count de Maistre, that "the sceptre of Science belongs to Christian Europe." It would demonstrate-and demonstrate without peradventure—the truth of those admirable words of the fourth chapter of the dogmatic Constitution of the late Vatican Council, that "the Church, far from being opposed to the progress of human arts and sciences, assists and encourages them in many ways"; that "she is not ignorant of, and does not despise, the advantages which accrue from them to the life of mankind"; and that "she does more, and recognizes that, coming from God, the Author of science, their proper use should, with the assistance of His grace, lead to God."

These words of De Maistre and of the Vatican Council may, then, in a way, serve as my thesis, as they embody, in a great measure, all that I shall have to say on the subject on which I have chosen to address you. I shall endeavor to show you that THE SCEPTRE OF SCIENCE TRULY BELONGS TO THE CHURCH

by every title on which it is possible to base a claim,—that history declares it, that the facts maintain it.

I shall, in the first place, call your attention to the fact that the great universities of Europe are Catholic in their origin, and that most of them were founded long before the period of the Reformation. I shall then show you that Catholic students were the first to introduce the true system

^{*} Lecture delivered March 1, 1885, by Rev. J. A. ZAHM, C. S. C., Prof. of Physical Science.

in the study of nature—that of observation and experiment, and known as the method of induction, -and that they had employed it, and with success, centuries before the time of Lord Bacon, its alleged originator. We shall next see—and I wish to specify it in advance, as I wish it to constitute the most salient feature of my discourse—how eminently practical the children of the Church have always been in all their studies and investigations; for, as I proceed, we shall find that all the great discoveries and inventions that have exerted the most potent influence in advancing scientific knowledge and in ameliorating the condition of our race are to be credited to the Church and to her devoted children. In reconnoitring the vast domain of nature, their aim has always been, as we shall notice, to observe and classify the various facts and phenomena which presented themselves in answer to inquiries, and to eschew theory and hypothesis except when of evident assistance in co-ordinating and systematizing the results of their researches. And, finally, after recounting what the Church has done directly, I shall ask you to consider what she has done by her influence,—an influence, which, it will be found, has been as efficacious in forwarding the cause of science as it has been in contributing to the propagation of the teachings of the Gospel and the advance of civilization. In a word, we shall find that the Church, during the whole course of her history, has always moved forward. In the world of thought she has never stood still nor retrograded, and much less has she retarded in any way the grand intellectual march of mankind, seeking new conquests in the boundless realms of nature and science.

We may take up the annals of science, and we shall find that the pioneers and most active and successful workers in every branch thereof have been not only devoted sons of the Church, but also, in many instances, have been and still are ecclesiastics and members of religious orders. I shall, as I proceed, give you the names of some of these, and state what they have accomplished; but, for want of time, I shall be obliged to pass over many names and discoveries that have reflected glory on the Church of God as well as on their authors. If I can succeed in exciting in your minds an interest in the subject, and a desire for further information-which you can obtain by going over, at your leisure, the story of science—I shall feel that my effort has not been in vain.

Every student of history knows that the

GREAT UNIVERSITIES OF EUROPE

were founded by Catholic kings and princes, and often under immediate Papal inspiration. Away back in the Middle Ages, and long before the appearance of the Reformation, Oxford and Cambridge, Aberdeen and St. Andrew's, Upsala and Copenhagen, Paris, Toulouse, and Montpelier, Freiberg, Leipsic, Heidelberg, Tübingen, Wurzburg, Cracow, Prague, Vienna, Bologna, Naples, Pisa, Turin, Rome, Salamanca, Seville, Valladolid, Coimbra, Louvain, were celebrated seats of learning, and attended by thousands of students,—in

some instances, the number exceeding 10,000 for one university, something unknown in modern times,—long before Luther rose in rebellion against the Church, and sounded that note of discord that almost destroyed the social and intellectual harmony of Christian Europe.

In these centres of intellectual activity genius had full play, and the mind, untrammelled in its operations, was free to range over the entire realm of thought, and to enter every department of knowledge, sacred or profane. Here were taught all the branches of art and science; here we find the first beginnings of many of those discoveries which, with subsequent development, have excited the admiration of a wondering world; and here, according to Carlyle, "nearly all the inventions and civil institutions whereby we yet live as civilized men were originated and perfected."

I have said that it is to the schools and scholars of mediæval Europe that we owe the inductive or experimental method of stuly which has contributed so materially to the advancement of natural and physical science. We owe it, among others, to Gerbert, afterwards Pope Sylvester II (born A. D. 920, died 1003), who was reputed to be the greatest scholar of his age; to Albertus Magnus, the towering genius of the 13th century, and to his great contemporary, Roger Bacon. I know that the Earl of Verulam, Lord Bacon, has been claimed as the originator of the inductive system of philosophy; but any one who has read aught of the history of science knows full well that this system was accepted and followed centuries before Lord Bacon was born.

Far back in the 13th century the illustrious Dominican friar, Albertus Magnus, writes in one of his works: "All that is here set down is the result of our own experience, or has been borrowed from authors whom we know to have written what their personal experience has confirmed; for in these matters experience alone can give certainty."

ROGER BACON,

an English monk of the Order of St. Francis, was so far in advance of his age that the erudite historian of "The Inductive Sciences," Dr. Whewell, declares that "it is difficult to conceive how such a character could then exist." Speaking of one of the works of the learned friar, the "Opus Majus," he remarks: "I regard the existence of such a work as the 'Opus Majus' at that period as a problem that has never yet been solved." Continuing, he says:

"It is indeed an extraordinary circumstance to find a writer of the 13th century not only recognizing experiment as one of the sources of knowledge, but urging its claims as something far more important than men had yet been aware of, exemplifying its value by striking and just examples, and speaking of its authority with a dignity of diction which sounds like a forerunner of the Baconian sentences uttered four hundred years later. Yet this is the character of what we find."

He then quotes the following paragraph from the "Opus Majus" of the Doctor Mirabilis:

"Experimental science, the sole mistress of speculative sciences, has three great prerogatives among other parts of knowledge: first, she tests by experiment the noblest conclusions of all other sciences; next, she discovers, respecting the notions which other sciences deal with, magnificent truths to which those sciences of themselves can by no means attain; her third dignity is that she, by her own power, and without respect of other sciences, investigates the secrets of nature."

W. Stanley Jevons, in his admirable "Principles of Science," speaking of the work of Lord—not Friar—Bacon, says:

"It is a great mistake to say modern science is the result of the Baconian philosophy; he mistook the true mode of using experience, and, in attempting to apply his method, ridiculously failed. Whether we look to Galileo, who preceded Bacon, to Gilbert, his contemporary, or to Newton and Descartes, Leibnitz and Huyghens, his successors, we find that discovery was achieved by the very opposite method to that advocated by Bacon."

J. W. Draper, whom no one will accuse of being partial to Catholic interests, attributes the great work of reform in the methods of scientific investigation to that universal genius of the 15th century, Leonardo da Vinci.

"To him, and not to Lord Bacon, must be attributed the renaissance of science: Bacon was not only ignorant of mathematics, but depreciated its application to physical inquiries. He contemptuously rejected the Copernican system, alleging absurd objections against it. While Galileo was on the brink of his great telescopic discoveries, Bacon was publishing doubts as to the utility of instruments in scientific investigations. To ascribe the inductive method to him is to ignore history. His fanciful philosophical suggestions have never been of the slightest practical use. No one has ever thought of employing them. Except among English readers, his name is almost unknown."

I quote these passages, and dwell thus at length on the point to which they relate, because I wish to show you that

CATHOLIC SCIENTISTS

were not only acute observers and industrious investigators, but that to them is due the inductive method that is now universally employed in scientific research. This is important. It is claimed as one of the great glories of a later age, but, as we have seen, without foundation. Introduced by the monks of the Middle Ages, and continued by their successors, it was, later on, employed by the professors of science in the universities of Italy and of other countries, until the time of Galileo and his school, when it may be said to have reached its culmination.

It was by studying in accordance with the principles of the inductive philosophy—by insisting on experiment—that mediæval and modern scholars have been able to make such giant strides in natural and physical science. Laying aside the speculative and metaphysical systems of the Greek and Alexandrian schools, and questioning nature directly, Galileo and his pupils (many of them ecclesiastics) were able to accomplish more in a few years than the philosophers of Greece and Rome had achieved during the long intellectual ascendency of their respective countries. During the six hundred years that the schools of Athens were open, less of actual work was done in physical science than Galileo, unaided and alone, accomplished in a lifetime. The difference in the result was due, I repeat it, wholly and solely to the

method employed by the Italian philosopher,—a method for which Galileo was indebted to the

MONKS OF THE MIDDLE AGES

no less than to his own transcendent genius.

From what I have just said it is evident that our estimate of the alleged "Dark Ages" must be quite different from the one which is so frequently given. This period of time was not only an Age of Faith, but, to borrow the words of Ruskin in a recent lecture, "an age which was eminently productive of, eminently under the governance and guidance of, men of the widest and most brilliant faculties, constructive and speculative,—men whose acts had become the romance, whose thoughts the wisdom, and whose arts the treasure of a thousand years."

I have shown you that we are indebted to the Church for the correct system of scientific study. Can it likewise be proved that we owe anything to her or her children for the application of this system to actual and successful work? In other words, have Catholic scientists been distinguished for any important inventions or discoveries, or anything that should entitle them to the lasting gratitude of their race? Yes: and these are the questions that I now purpose answering, by recounting, as briefly as may be, some of the more important contributions made to science by the sons of Holy Church.

Let us commence with

GEOGRAPHY,---

the science which teaches us concerning the earth on which we live. Has it ever occurred to you that nearly all the knowledge we have of the earth's surface comes to us from Catholic sources? Far back in the 6th century, we have an Egyptian monk, the learned cosmographer, Cosmas Indicopleustes, who, according to Malte-Brun, an unprejudiced critic surely, was the author of the only original work of that epoch, and who, as a geographer, was scarcely less worthy of consideration than Ptolemy. After him come the missionaries of the Gospel, who, at the command of the Popes, went on their errands of charity to parts of the world until then unknown, and on their return gave the people of Europe a knowledge of the countries which they had visited. In 1246 Father John de Piano Carpino, accompanied by some Franciscan monks, was sent by Innocent IV to Kayuk Khan, the Emperor of Tartary, and journeyed as far as Thibet. In 1253 Father Rubruquis, another Franciscan, went, by the order of Louis IX of France, in search of Prester John, and penetrated farther into Asia than had any other These two apostolic friars, together with Ascelin, also a missionary, are, according to the testimony of Malte-Brun, as deserving of the eternal gratitude of geographers, as are the Columbuses and Cooks of a later age. They stimulated others to explore unknown lands, and thus contributed greatly to the advancement of geographical knowledge. Sir John Mandeville, the celebrated English traveller of the 13th century; Vasco de Gama, and even Columbus, were indebted to them for much information in their journeys and voyages of exploration.

But the greatest discoveries in the Orient at this period were made by the illustrious Venetian traveller, Marco Polo, whom the great geographer Malte-Brun pronounces the Humboldt of the 13th century. Going with his father, uncle, and a few monks to the Pope to receive the Pontiff's blessing, they set out in 1271 for the court of Kublai Khan, the Tartar conqueror of China. After a journey of more than three years, they reached a city near the present site of Peking. After residing twenty-four years in the East, and travelling much of the time, Marco Polo returned to his home, and wrote an account of his travels, which first made known the existence of many of the countries and islands of the East, including Japan.

It was Columbus, sailing under the banner of the Cross, who discovered the New World; Vasco de Gama, carrying a flag on which was the cross of the military order of the Most Holy Redeemer, who first doubled the Cape of Good Hope, and reached the East Indies; Magellan, following the Cross and the standard of Castile, who first rounded Cape Horn; and, although he did not get any farther than the Philippine Islands, where he met his death at the hand of the natives, his ship, the Santa Victoria, continued her journey, and, going by way of the East Indies and the Cape of Good Hope, was the first to effect the circumnavigation of the globe. Cortez and Balboa, and their associates, explored Mexico and Central America; Pizarro and his countrymen the unknown lands of South America, and De Soto the territory bordering the northern portion of the Gulf of Mexico.

The sons of Catholic France went to Canada and what is now known as British America, and made known to their brethren in Europe the countries they had visited, and the manners and customs of their inhabitants. Fathers La Salle and Marquette, Jesuits; Hennepin and Membré, Franciscans, explored the great chain of lakes from Ontario to Superior, and the lands and tribes adjacent, and were the first to journey from the source to the mouth of the Father of Waters. We have only to look over the maps of the different countries of the world to recognize the handwriting of the children of Holy Church. Everywhere, in spite of the many changes in names that have been introduced by writers and map-makers of a later age, we find cities, countries, islands, lakes, and rivers, bearing names that could have been suggested only by Catholic hearts, and souls ever mindful of the glory of their Church and of her saints, and of the grandeur of the doctrines and mysteries which she inculcates.

The western hemisphere is named after Amerigo Vespucci, a Catholic navigator, who visited the New World shortly after Columbus. The first map of any value of the great Empire of China, the Atlas de la Chine, was made by Jesuit priests. And generations before the times of Burton, Speke, Livingstone, and Stanley, the tribes of Central Africa had witnessed the labors of the missionary who had come to bring them the glad tidings of

the Gospel. Only a few years ago the attention of the scientific world was called to a terrestrial globe in Lyons, France, that long before had been constructed by the Franciscan Fathers, which showed many geographical features whose discovery has been credited to modern explorers.

Among the contemporary explorers of the "Dark Continent" is the well-known French ecclesiastic, Abbé Debaize. And among those who have specially been honored in late years for their contributions to geographical knowledge is Father Desgidius, the learned explorer of the frontiers of Thibet, and Father Petitot, who has recently been made the recipient of a gold medal for his geographical labors in Alaska, as has also been the Lazarist missionary, David, for his researches on the geography and natural history of China. But let us turn from what the Church has done for the advancement of the science of geography—as we might go on indefinitely, telling of what she has achieved in this field—to what she has done for

ASTRONOMY.

It was Dionysius the Little, a Roman monk, who, in the middle of the 6th century, introduced the system of chronology that obtained in Europe for upward of a thousand years. The famous Gerbert and Friar Bacon were the great astronomical lights of the 10th and 13th centuries. Indeed, nearly every astronomer of note for the first fifteen centuries of the Church's history was an ecclesiastic. It was Nicolas of Cusa, afterwards Cardinal, who first called attention to the weakness of the Ptolemaic system, which makes the earth the centre of the universe; but it was reserved for the great Copernicus, an humble Polish priest, to develop the system that has since borne his name, -a system which makes the sun, and not the earth, the centre of the solar system. And, contrary to the generally received impression, the first to accept and promulgate the new doctrine were the dignitaries of the Church and the professors of the Catholic universities of Europe. The great work "De Orbium Cælestium Revolutionibus," in which Copernicus worked out his theory, was published at the instance of Cardinal Schomberg and Bishop Tiedman Giese, and dedicated to the then reigning Pontiff, Paul III. The learned Jesuit, Christopher Clavius, defended it in Germany; the Augustinian friar, Diego de Zuñiga, proclaimed it in Spain; and the Carmelite, Foscarini, supported it in Italy; whilst the learned Cardinal Barbarini, afterwards Pope Urban VIII, the great advocate of arts and letters, gave it his patronage in Rome, which was then the centre of science as well as of Christen-

But mark those who were most violent in their opposition to the new system. Lord Bacon, the alleged father of experimental science, never accepted it. Tycho Brahe, the Danish astronomer, preferred a theory of his own—an awkward and complicated one, based on that of Ptolemy. Both ridiculed the heliocentric theory, and heaped opprobrious epithets on its author. Melancthon called the new doctrine an absurdity, and referred to it

as the production of an imbecile, or of one who was striving to gain notoricty. Luther, the vaunted champion of intellectual freedom, spoke of Copernicus as "an upstart astrologer, who strives to show that the earth revolves,—not the heavens, nor the firmament, nor the sun, nor the moon. Whoever wishes to appear clever must devise some new system, which of all systems is, of course, the very best. This fool wishes to reverse the entire science of astronomy."

The annals of astronomy in subsequent times tell the same story. Those who contributed most to the advance of astronomical science,—those who achieved most marked distinction for their brilliant discoveries, were Catholics. It was

GALILEO GALILEI,

about whom so many romances have been written, -Galileo, the friend and protegé of Cardinals and Popes, whom imaginative historians would have us believe were his persecutors,—who invented the telescope, which, with a few discoveries he soon made, entirely revolutionized the science of astrouomy. With this he discovered the satellites of Jupiter, the ring of Saturn, the mountains of the moon, the sun's spots and its rotation on its axis. He also resolved the Milky-Way into myriads of stars, observed the phases of the planet Venus, and made known the moon's diurnal libration. And here let me call your attention to the fact that Galileo made some of these observations in the Quirinal gardens belonging to his friend and patron, Cardinal Bandini. There he had placed his telescope, and there, all statements to the contrary notwithstanding, he met with that favor and encouragement which spurred his genius on to other discoveries and more brilliant achievements. Let me also remind you of the fact, when you read of this "martyr of science" (?), that Galileo had received a life pension in order to be able to prosecute his studies, and that the one who granted this pension was one who, we are seriously told, was among his persecutors—the great Pope Urban VIII.

Galileo's scholars, Cassini, Maraldi, Castelli, and Bianchini, carried on his work in astronomy as well as in the other branches of physical science. The famous Abbot Gassendi was the first to observe a transit of Mercury over the sun's disc, and determine its diameter. Piazzi, a Theatine monk, discovered Ceres, the first of the asteroids. He also prepared a large catalogue of 7,000 stars, so perfect in all its observations that, only a few decades ago, Prof. Airy, late astronomer Royal of England, spoke of it "as referred to by all observers as a standard catalogue," and " as the greatest work undertaken by any modern astronomer." To this same Piazzi, Lalande declared, astronomy owed more than to any man since the great Greek observer, Hipparchus. A priest, Orioli, was the first to determine the orbit of the planet Uranus; and the first to add the telescope to the quadrant, and to make the first exact measure of the earth's meridian, was a learned French ecclesiastic, the Abbé Picard, first President of the French Acadcmy of Sciences. This latter work of his, the measuring of the earth's meridian, may not, at first sight, appear to you to be of much consequence, and yet it is to it directly, I might say solely, that we owe Newton's great law of universal gravitation. Newton had worked on the subject long, but with unsatisfactory results. Twenty years later he was made acquainted with the result of Picard's measurements, and resumed the calculations he had so long abandoned, when lo! thanks to the French Abbé's work, the problem of universal gravitation, so wide-reaching in its importance, was solved.

Neptune, the most distant planet of the solar system, was discovered by

LEVERRIER,

and in a way that will always make him rank with the greatest of mathematicians and the most profound of astronomers. Observing that the path of the planet Uranus deviated from that traced out by mathematicians, he went to work and calculated, from the observed irregularities of the planet's motion in her orbit, not only the size and orbit of the disturbing body, which neither he nor any one else had ever seen, but actually pointed out the place the planet would occupy in the heavens at a given time. The telescope was turned to that point, and for the first time was visible to human eyes the planet Neptune. And who was Leverrier? He was the director of the French National Observatory. But he was something more: he was a devout Catholic. In the Observatory he had two objects he was always wont to point to with pride: his grand refracting telescope—the finest in the world—and his crucifix; two objects that, to his mind, were typical of what can not be too closely united—Science and Religion.

To the learned Jesuit, De Vico, the discoverer of eight comets, whose observations and calculations have stamped him as one of the ablest astronomers of any age; the late Father Secchi, recognized everywhere as the greatest authority on the sun and its constitution, and one of the foremost investigators in that important branch of modern astronomy, spectrum analysis; and Father Perry, the present director of the observatory at Stonyhurst, we are indebted as much—if not more—for contributions to the advance of astronomical knowledge as to any other three men of the present century.

I should like to speak of others who have equally honored astronomy and the Church, but the list is too long to admit of their being noticed with any justice in a mere lecture. Suffice it to say that it was the

RELIGIOUS ORDERS

of the Church—and notably the Benedictines, Jesuits, and Augustinians—that first gave an impetus to the erection of observatories, and to the dissemination of astronomical knowledge among the masses. Before they took the matter in hand, telescopes and astronomical appliances were to be found only in large cities. But after these learned religious commenced their work, observatories were to be found wherever they had a school or

college; and many of the best-known observatories of Europe to-day are, like her great universities, to be credited to the work or direct influence of Rome, Florence, Venice, Milan, the Church. Parma, Avignon, Lyons, Lisbon, Marseilles, Vienna, Wurzburg, Manheim, Gratz, Prague, Breslau, Posen, and other places in Europe, owed to the illustrious orders just mentioned their first observatories. To these same orders are due the credit of being the first to found observatories in other parts of the world—in the capitals and larger towns of South America, in the Philippine Islands, in Australia, and in their various missions in the East Indies and China. It is well known that the Jesuits on entering China not only carried with them the Gospel, but all the instruments for the successful study of the science of astronomy, and that in the year 1620 they replaced the natives in the management of the observatories of the Celestial Empire. It would seem that these zealous missionaries wished to show their superiority in the knowledge of the visible as well as of the invisible universe, in order the more easily to draw the minds of their hearers to a study of that which is eternal, and to the knowledge of a heaven more beautiful and more lasting than that which affords such delight to the mortal eye of the astronomer.

Ecclesiastics, too, have been frequently called on as the most able persons to make important observations in foreign parts, when special skill and knowledge were required. In 1760, Juan Chappe d'Auteroche, a French priest, was delegated by the Academy of Sciences of Paris to observe the transit of Venus in Tobolsk, Siberia, and a few years later he was sent on a similar expedition to California,—his efforts in both instances being crowned with the most flattering success. Similarly, Father Alexander Guy was chosen by the same Academy to observe the transit of Venus in the Indian Ocean; and he did his work so well that he was subsequently called upon several times to execute other important commissions in the interests of navigation and astronomy. In our own day, Father Perry, S. J., has been sent on a similar expedition by the English Government to Kerguelen and Madagascar. One of the most eminent astronomers in Italy to-day is Padre Denza, a Barnabite monk. In all parts of the world, ecclesiastics have now charge of observatories—at Rome, Louvain, Puebla, Havana, Kalosca, Calcutta, Zikawei, and Tchang-kia-Tchouang, in China;—and the value of their work, performed quietly and unostentatiously, is known and appreciated only by those who are capable of judging of the merits of accurate study and delicate observations.

What the Church has done in astronomy, she has also done in

MATHEMATICS:

she has taken the lead in discovery and development. Arithmetic, as a science, owes its origin in Europe to the learned Gerbert. The first treatise on algebra was published in Venice in 1494 by a Franciscan friar—Paccioli di Borgo. He went as far as equations of the second degree, and foresaw

the application of algebra to geometry. His work served as the basis of all the works on algebra written during the succeeding century. Paccioli's work was developed by Gregory Reisch, prior of the Carthusian monastery at Freiberg. Cavalieri, of the Order of Jeromites, was one of the inventors of the infinitesimal calculus, and solved many problems that Kepler and other eminent mathematicians had given up in despair. He made known the relations between the spiral and the parabola, and worked out the great problem of Kepler concerning the revolution of a parabola about its ordinate, and wrote the first approach to a treatise on the conic sections. His work on "Continuous Indivisibles" paved the way for the great mathematical triumphs of Leibnitz and Newton: The quadrature of the circle, and other puzzling problems, were solved by the Jesuit, Gregory de San Vicenté. Father Mersenne, of the Order of Minims, and the intimate friend of Descartes, was the inventor of the cycloid. The cyclo-cylindrical curve is the invention of Father Laloubère. Ferrari, of Bologna, discovered equations of the fourth degree. Father Christopher Grinberger was the first to develop central projections, or the projection of a sphere on a plane surface. And so we might continue to enumerate the works of other ecclesiastics who did much for the development of all the branches of mathematical science:—Boscovich, Mako, Riccati, and Moigno, Jesuits; Lesueur and Jacquier, Franciscans; Inniger, Sadler, and Maurer, Augustinians; and hosts of others whose names are inscribed in the history of science.

Besides the ecclesiastics just referred to, I might mention a long list among the laity, who have been as devoted to the Church as they were to science. I will, however, content myself with the names of Pascal, Cauchy, Adrianus Romanus, and Descartes. The former was the first to approach the binomial theorem of Newton, and to lay down the principles of the calculation of probabilities, and, according to La Place, was, with Fermat, one of the chief inventors of the differential calculus. Cauchy was celebrated as the greatest mathematician and analyst of his time, and is distinguished among mathematicians for his contributions to analysis and the residuary and imaginary calculus. Adrien van Roomen, or Adrianus Romanus, as he is generally called,—a professor of the University of Louvain during the latter part of the 16th century—was one of the ablest mathematicians of his age. His is the glory of having invented modern or symbolical algebra, a work which was more fully developed by the French geometer, Viète. Before his time the operations of algebra, besides being comparatively limited in their applications, were carried on in ordinary language, a process that was as long as it was complicated. The introduction of letters and symbols by Romanus, and the subsequent additions by Viète, gave us algebra as we have it to-day—universal in its application to quantities of what kind soever, he they the numbers of arithmetic or the figures of geometry. Descartes holds a conspicuous place with the master-minds of history. He was the inventor of the

New Geometry, which consists in the application of algebra to geometry,—a discovery which, to quote a well-known French author, "by its facility, uniformity, and the generality of its rules, cast at once into the shade all the geometrical theories of the ancients, and became for two centuries the almost exclusive instrument in researches on the properties of space." It has, according to the illustrious French mathematician, Michel Chasles, "changed the face of the science of mathematics, and may to-day be regarded as the invention which has most contributed towards its progress." Indeed, it was by arming themselves with this method that Fermat, Pascal, Sluze, Roberval, Leibnitz, and Newton were enabled to create a still more powerful instrument—the infinitesimal calculus—to which we are indebted for the rapid and immense progress made in our knowledge of the heavenly bodies, and in the laws of mechanics and physics.

I should like also to tell you of the work of the pious Michel Chasles, of whom it was said by a contemporary mathematician that all the geometers of Europe were his disciples,—of that Chasles of whose work the eminent physicist Sir E. Sabine did not hesitate to say, "if one considers the vast extent of the field thus opened to our investigations, it is very probable that, considered as an instrument of research in pure geometry, the method of M. Chasles may bear comparison with any discovery of the present century." I should like, too, to tell you of other later ornaments of mathematical science—of Dupin, of Puisieux, of Gaspar Monge, the assistant of Abbé Nollet, and later on, the inventor of the Descriptive Geometry; but I must hurry on.

IN THE VARIOUS DEPARTMENTS OF PHYSICS

we are again indebted to the Church for not only taking the initiative, but also for placing the landmarks of the science. It was Leonardo da Vinci, and subsequently Galileo and his school—Torricelli, Vivianni, Borelli, Castelli, Mersenne, and Gassendi (the last three of whom were ecclesiastics)—that created those branches of the science known as mechanics, hydrostatics, hydraulics, and hydrodynamics. They were the first to cast aside the traditions of the ancients, and to substitute experiment for the dicta of Aristotle and the teachers of the Alexandrine school. Before Galileo's time, little was known about the laws of solids and fluids in motion. But the scholars just mentioned took the matter in hand, and performed their work so well that they left comparatively little for subsequent investigators to accomplish. Many of their experiments are yet classical, and we wonder how sciences like those just mentioned could be created and almost fully developed in such a short time.

And yet all this work was done in the shadow of the Church, and much of it by monks. And so also in every branch of physics you will find laws and apparatus bearing the names of ecclesiastics. Mariotte, famed for his researches in pneumatics, was prior of a French monastery. Even the well-known experiment of the guinea and feather in a tube exhausted of air was devised by him.

(TO BE CONTINUED.)

A Letter to Henry Clay.

The following letter, clipped from an old eastern newspaper-the Philadelphia Ledger-is worthy of being preserved as a "relic of the past." It was written by a professor at Notre Dame to the famous statesman HENRY CLAY, complimenting him upon his famous speech on the "Resolutions of Compromise on the Slavery Question," delivered in Congress, Feb. 5th and 6th, 1850. At that time the University was known as Notre. Dame du Lac, the name under which it had been chartered. The correspondent of the Ledger remarks: "I am now proud to be accidentally the instrument of publishing, through the Ledger, a letter addressed to the Hon. Henry Clay by a literary institution of the Far West, breathing a spirit of patriotism, and a devotion to the Union, expressed in language so appropriate and eloquent, that I cannot refrain from communicating it; though, in so doing, I must apologize, beforehand, for the indiscretion of which I may be guilty." The letter reads as follows:

> University of Notre Dame du Lac, Near South Bend, Indiana, March 14, 1850

Hon. Sir: - The President and Faculty of this Catholic Institution, all unknown to you as they are, cannot resist the impulse created by the recent reading of your great compromise speech in the College rejectory, to address you a brief letter of thanks for their share in that rich treat. Professing a creed, widely different from your own, and which is generally, though falsely, supposed to be anti-American, and hostile to civil liberty, they yet partake with you in all those just, wise, and moderate views which you advance in the noble document referred to, and in all that patriotic and trembling solicitude for the continuance and perpetuity of this glorious Union, which you so laudably manifest. It would be dissimulation in those who address you to affirm ought else than that they seek the edification and glory of the kingdom of their Master, Christ, before all other earthly considerations; but besides this reigning aim and desire, they know no greater love and affection than that they bear towards the Constitution and Federal Government of these States. With the integrity, stability Government of these States. With the integrity, stability and unchecked progress of this land of religious liberty, they see identified the highest interests of the Church of Jesus Christ, and the highest hopes of humanity; and, greatly as they venerate your exalted patriotism, evinced not only now in this painful crisis, but also through a long and illustrious life of unselfish and unrequited devotion to your country, they will not yield to you in the alarm they feel in view of the dangers now threatening the Union, or in earnest and continual supplications to the God of Nations, that He will be pleased, for His Church's sake, to avert from us those imminent perils which now menace

While you are assailed by the violent and insane of both sections of the Union, we thought it might be agreeable to you to know that in a secluded Religious House, whose inmates have their citizenship and conversation in Heaven, who commune more with the mighty past than the present, and whose invisible companions are the noble army of Saints, your kindling oratory has warmed and cheered many a heart inflexibly and altogether Amprican.

In behalf of the President and Faculty, I have the honor to be, with the greatest consideration, your obedient servant,

GARDENER JONES.

HON. HENRY CLAY, Washington, D. C.

The Ledger says, further: "The letter speaks for itself, and deserves, at least, to be laid ad acta, with historical evidences and illustrations of the times."

NOTRE DAME SCHOLASTIC.

Notre Dame, March 7, 1885.

The attention of the Alumni of the University of Notre Dame and others, is called to the fact that the NOTRE DAME SCHOLASTIC has now entered upon the Eigit-TEENTH year of its existence, and presents itself anew as a candidate for the favor and support of the many old friends that have heretofore lent it a helping hand.

THE NOTRE DAME SCHOLASTIC Contains:

choice Poetry, Essays, and the current Art, Musical, Literary and Scientific Gossip of the day.

Editorials on questions of the day, as well as on subjects connected with the University of Notre Dame.

Personal gossip concerning the whereabouts and the success of former students.

All the weekly local news of the University, including the names of those who have distinguished themselves during the week by their excellence in class, and by their general good conduct.

Students should take it; parents should take it; and,

above all,

OLD STUDENTS SHOULD TAKE IT.

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EDITOR NOTRE DAME SCHOLASTIC, Address '

Notre Dame, Indiana.

If a subscriber fails to receive the Scholastic regularly he will confer a favor by sending us notice immedia elv, each time. Those who may have missed a number, or numbers, and wish to have the volume complete for binding, can have back numbers of the current volume by applying for them. In all such cases, early application should be made at the office of publication, as, usually, but few copies in excess of the subscription list are printed

The Editors of the SCHOLASTIC will always be glad to receive information concerning former students and grad-

uates of the University.

Our Staff.

N. H. Ewing, '84.

G. HARRY SMITH, '85.

C. C. Kolars, '85. P. Goulding, '86. T. J. McKinnery, '85. FRANK H. DEXTER, '87.

FRANK J. HAGENBARTH, '87.-

Rev. Father Zahm delivered an able and instructive lecture in the St. Cecilia Assembly-room on last Sunday evening. We present in this number the first instalment of the Rev. lecturer's remarks. In spite of its great length, the treatment of the subject will be found to be unusually interesting because of the many historical data furnished in connection with the origin and development of the various branches of natural science; and especially timely in view of the great "scientific progress" of our day, the credit of which is claimed by irreligion and "free thought."

-Following is the address from the Minims of Notre Dame to His Holiness Leo XIII. The

original, now on its way to Rome, in charge of Very Rev. Father Sorin, is beautifully printed in gilt letters on white satin, and is an artistic piece of work of which our office is not The address is enclosed in an a little proud. elegant cover, richly ornamented, containing in front the "dedication" with the seal of the Congregation painted in water colors; on the back an engraving of "St. Edward's Hall," surrounded with sacred paintings and richly set with precious stones. The paintings are by Signor Gregori. The design of the whole is tasteful in the extreme, and forms an appropriate setting for the words of affection and devotion embodied in the address. We have no doubt that the fondest expectations of our young friends, the Minims, will be realized, and that, upon its presentation by their revered Patron, the much-coveted benediction of His Holiness will be bestowed on them. The address reads as follows:

SANCTITATI SUÆ LEONI PAPÆ XIII.

MINIMI NOSTRÆ DOMINÆ UNIVERSITATIS ALUMNI. BEATISSIME PATIR:

In ffabili benevolentia quá universum Domini gregem amplecteris, allecti, et cordis nostri ardentissimo amore pulsi, nos, minimi hujus gregis agnelli, ad summum Pastorem nostrum accurrimus, ut ei nostram devotionem, pietatem ac venerationem offeramus, et ejus benedictionem imploremus.

Novimus quidem, ex multis beneficiis et spiritualibus gratiis a Sancta Sede receptis, fam im Universitatis Nostræ Dominæ Romam pervenisse, sed valde dubitamus an unq am nostrum nostrique collegii nomen tam longe auditum fuerit. Nam separati et remoti a cæteris Universitatis alumnis et ædificiis, nos, parvuli, fere centi numero, qui nondum duodecimum annum attigimus, in hoc Sancti Eduardi Collegio, ab optimis Sanctie Crucis Sororibus educandi et instruendi, vivimus et studemus.

Itaque specialem benedictionem a Patre nostrarum animarum instanter petere audemus, ut Deus scientiarum et virtutum, quem proxime cernis et quo iamiliariter uteris, nostras mentes superno lumine illustret, et cor nostrum

divinis gratiis confirmet.

Oh, quam læti essemus si, maria transgressi, possemus Te contemplari, jam non solum in his imaginibus quæ in aulis nostris appensæ tuam memoriam quotidie nobis revocant, aut etiam in i la pulcherrima et preciosissima Pictura quam egregius quidam artifex nobis ex Ita ia attulit, sed reipsa, ut pueri urbis Romæ, quibus invidemus, te contemplantur! Nam, quamvis e diversis Americæ partibus collecti, differamus natione, lingua, imo et religione, quum etiam quidam pueri Judæi sint inter nos, omnes tamen unanimi et concordes miramur Supremum Ducem qui tam strenue defendit Ecclesiam, et veneramur Summum Pontificem qui super omnes reges terræ, majestate divina coronatus, nobis apparet.

Oh, quam læti etiam essemus, si longe ab isto rege et aliis inimicis qui Te persequuntur, in nostra Republica, ubi te aggredi non auderent, securiorem sedem eligere velles! Quanto gaudio Te in Nostra Universitate reciperemus! quanta alacritate, tui occidentales filii, circum Te ruentes ut pueri Galilææ circum Jesum, recreare et consolare Patrem certarent, usquedum melius Eum desendere possent! Nam quum venerabilis et ametissimus Conditor hujus Universitatis soleat vocare nos Principes, sine dubio sperat fore ut brevi ex nobis surgant sortes et genero-i Ecclesiæ milites. Quod quidem maximæ gloriæ et summo decori nobis erit! sed interea, inermes et invalidi pueri, quotidianas preces fundimus ad Illum Dominum qui suos tueri optime novit et potest, quique non sivit nec sinet unquam suum amicum et vicarium Petrum mergi in fluctibus maris.

Hæc omnia vota, amoris pignora, preces et desideria, puerili sed sincero sermone expressa, carissimo et Reverendissimo Patri Generali Edundo Sorin, qui nos peculiari dilectione fovet, committimus ut ad pedes tuos ea cum cordibus nostris deponat, et hanc quam ardentissime cupimus, nobis nostroque Sancti Eduardi Collegio, specialem benedictionem Supremi Pontificis obtineat.

Amantissimi et Devotissimi Sanctitatis Tuæ Filii, MINIMI UNIVERSITATIS NOSTRÆ DOMINÆ ALUMNI.

Journalists as Orators.

It is a notable fact that newspaper men are seldom distinguished as orators. The why or wherefore it is not easy to know; though, undoubtedly, there is somewhere a sufficient cause. To us it seems that the cause may be found in the nature of their work. The mechanical action of writing is much slower than the ordinary movement of the thoughts. And this serves greatly to retard the spontaneous action of mental evolution in speaking, greatly checking the fervor with which the language of great orators is often instinct. By long discipline, the thoughts of the writer become accustomed to flow in a slow, deliberate, methodical style, which is very unfriendly to warmth of expression.

Thus it is that when the journalist essays to speak in public, his newspaper experience does him but little good—if, indeed, it does not actually detract from the force, originality and spontaneity of what he says. If he speak in the measure of the speed of thought to which he is habituated, his audience will presently be worn out. If he undertake to speak with the rapidity of those accustomed to oratorical efforts, he will often take leave of his reason and say nonsensical things; for reason is seated in custom and refuses to be prodded forward to look from cause to effect so rapidly. This much for the matter, and now for the manner of address.

Some editors, the late Horace Greeley serving as an example, express themselves with force and felicity in public speeches, but their manner is unimpressive and wanting in that peculiar magnetic influence which contributes to electrify an audience. They have in many cases a small, weak, piping voice, and nothing could more militate against success in oratory. This is chiefly ascribable to want of practice in public speaking, and to the vicious habit of bending over a desk from morning till night, through month after month, and year following year. The lungs are not afforded due ex-They are not twice a day filled to their natural capacity. In breathing, hardly one-half of the volume of air that should be inhaled is taken into them. Through this negligence the degree of expansion to which they attain commonly lacks almost a fourth of what it might become by judicious exercise. And in like proportion the force and volume of the voice are restricted, since the voice is commonly strong or weak in the ratio of the lungs' capacity. These facts sufficiently point out the difficulty in the way of a newspaper man's rising to oratorical eminence.

Practice in public speaking works wonders. In ancient times it was said Orator fit—"the ora-

tor is made." And there is much truth in the remark. The study and discipline through which all great orators of ancient as well as modern times passed, sufficiently prove that. It would be trite to repeat their names in this connection. They struggled to attain the power of blending thoughts, emotions, action and language in a sort of harmonious unity. When they thought with force, they spoke and gesticulated with force. As carefully as the finished actor they expressed themselves. As skilfully as the great artist they limned in speech the intangible emotions of the soul and the passions of the human heart. It is this power combined with intensity of feeling, judicious action, and a pleasing person, that makes the orator. Before one thus gifted, the hearer practically forgets himself and becomes so absorbed in the speaker and subject that he is hardly conscious of anything else. To illustrate this, we may quote the language of a gentleman who once listened to a speech of Sargent S. Prentiss, the famous orator of Missis-

"I took out my watch to mark the minute of his beginning, so that I could judge how far he might make me forgettui of the passage of time, and as I was replacing my watch in my pocket, he began. I listened, forgot everything else, and at the end of three hours I found my hand still holding my watch at the mouth of my pocket without having entered it."

Though that is manifestly a gross exaggeration, yet it serves to show a possible effect of the fascination of true eloquence.

Newspaper men might become orators as readily as lawyers do were they able to overcome the difficulties referred to and have practice in public speaking. But while these obstacles remain in the way, there is likely to be a notable paucity of distinguished orators among them.

H.

Exchanges.

—The College Transcript shows good work and careful editing. Our Ohio Wesleyan friends may well take an honest pride in their paper and in the work exhibited in it.

—Instead of suffering the threatened penalty of suspension, the King's College Record is out on time, as bright and newsy as ever. A new cover with finely executed engravings of the College buildings and a neat title add greatly to the appearance of the paper. From a literary point of view, the King's is unexceptionable.

That bright and generally excellent paper, The Cincinnati Artisan,—to which we called attention a few weeks ago—has lately been enlarged to 16 pages. The price of subscription is only \$1 a year. The Artisan contains more valuable matter on practical science and applied arts than can elsewhere be had for the price charged for it. The current issue contains able editorial articles on scientific subjects, besides "Trade Notes," "Industrial Notes and Notions," "Books and Periodicals," "A Question Box," etc. Such papers as The Cincinnati Artisan cannot have too wide a circulation.

—The Otterbein Record does not agree with the Lariat's judgment of the Scholastic as a college paper. The Exchange-editor of the Otterbein says:

"Among the newsiest of our exchanges is the Notre Dame Scholastic. It is published weekly and is always full of interesting matter. If we were to make a criticism we should say it is a little too sectarian. While everyone has a right to his own opinions, we like liberal views and ideas. One thing we are convinced of is that the Exchange-editor is not afraid to say what he thinks. It contains an able article on 'Frederick Ozanam and the Society which he Founded.' In the issue of Jan. 3d there is an interesting article on 'John Milton' and a well-written sketch of Notre Dame"

If the writer had a glimpse of some twenty or thirty college papers on our table, each containing a fiery article on the "horrors of popery," in which all the stereotyped and oft-refuted calumnies that have appeared since the "Reformation," so called, are rehashed and commented upon, he would have reason to think our "sectarianism" very mild indeed. As a rule, we do not introduce religious matters, do not attempt to cast a slur on any one's religious belief; but when our Church is slandered we think it eminently proper to speak a word in her defence, and we shall continue to do so when the circumstances justify it.

-Most of the college papers try to excuse their feebleness in literary work, or its utter absence from their columns, by expressing a preference for "college news," as the Lariat terms it. Much of this "college news," in some of the Western papers especially, is as lean as Noah's-goat, and can be of no interest to anybody except the editors who have a paper to fill and nothing to put in it. As, for instance, the following exemplary items in the Lariat: "Jones doesn't sometimes, always, generally come to recitations." Excepting only the exceptionable "English" of this item, it is a fair sample of a large proportion of the "college news." The news-hankering readers of the Lariat are also informed that "Lewis doesn't read Latin as fluently as French," that " Maxwell is expected to comb his hair on the 22d," that "Kritz is 'putting her thar' in Greek," that "Allen confidently expects to 'get thar' at the Oratorical contest," and that "Coons can't stand it to wear his overcoat in the house." In one local the readers are treated to the information that "The winter is still with us"; in another, that "Already the warm hand of spring has begun to make itself felt." If our readers be inclined to think it cruel to call attention to such stuff as the foregoing, they will do well to remember that those who publish such items are too conceited or thick-headed to notice their own defects, are constantly proffering impertinent advice, and laying down rules for the guidance of other college editors who are vastly their superiors.

—We clip the following from an editorial in the *University Cynic*, University of Vermont, commenting upon a list of the various college libraries which appeared in a recent number of the SCHOLASTIC:

"Speaking about college libraries, the University of

Vermont would fairly occupy a place in this list with her 32.000 volumes, and a score of universities whose libraries range between 45.000 and 20.000 volumes each still remain unmentioned. It is ridiculous to publish so incomplete a tabulation as the above. That the Scholastic was anxious to announce the size of its own library is evident in the leap which it takes from a library of 45.000 volumes to its own of 20,000, when so many collections of intermediate size might have have been found."

How could we publish that of which we were not aware? Will the *Cynic* please tell us how it can be done, and earn the distinction of a leather niedal? As a corollary to the foregoing, we find the following item in the *Cynic's* "Notes":

"The following is the number of students in attendance in the different institutions of this country: Harvard, 1568; Columbia, 1458; Oberlin, 1458; University of Michigan, 1171; Yale, 1086; Mass. Inst. of Tech., 579; Cornell, 539; Princeton, 505; Dartmouth, 402; University of Vermont, 346; Amherst, 334; Lehigh, 307; John Hopkins, 273; Williams, 253; Brown, 248."

If it be "ridiculous to publish an incomplete tabulation" of college libraries, is it not equally ridiculous to publish an incomplete tabulation of college students? The answer to this question will hardly deserve a second leather medal; we expect the Cynic to answer it gratis. Last year there were 420 students at the University of Notre Dame, this year nearly as many: we may, then, in turn, ask why does the Cynic jump from 505 at Princeton to 402 at Dartmouth, 346 at the University of Vermont, and 248 at Brown, without putting in the intermediate number at Notre Dame?

-We regret that our remarks on Prof. C. K. Adams's lectures at Cornell should have been thought unappreciative, or in any sense unfavorable to the lectures or the lecturer. We believe we spoke of the lectures as very instructive, not of such absorbing interest, certainly, as the series on the "Tariff" at Harvard,—which touch a living question,—but the very best preparation that could be made for the modern subject of political economy, now attracting so much attention, and upon which some of the greatest minds are divided. From the following exchange note in The Cornell Era we learn that our remarks were given a different interpretation from the one intended, and furthermore that we were misled by an incorrect report in the Cornell Daily Sun:

"The Scholastic is a very good paper, and we respect it very much indeed; but it has a curious way of putting its foot into Cornell matters about nearly as often as it has occasion to refer to Cornell at all. After a rather unappreciative criticism of the necessarily inadequate abstracts of Professor C. K. Adams' lectures, it says: 'Prof. Adams seems not to have alluded to the Achiean League at all, nor to have drawn any comparisons; if we are not misled by the report, he simply reviews historical facts, leaving his auditors to make comparisons and draw their own conclusions.' We can assure the SCHOLASTIC that it is altogether misled by the report in drawing the conclusions that it does. Professor Adams did precisely what the SCHOLASTIC says he did not do. The main object of the entire course of lectures was to bring out the bearing of the political development of Greece and Rome upon our own political development. Once before the Scholastic has been 'misled' by the *Sun* reports, and we hope it may be more careful in the future."

We thank the Era for its compliment and its polite intimation, and we shall certainly try to follow its advice in regard to future reports of lec-

tures at Cornell. While the Sun deserves credit for what it has done, it is a pity that it could not have arranged for more correct reports; the Achæan League was not mentioned, nor any of Professor Adams's comparisons alluded to. The Sun's statement that the reports were from stenographer's notes led us to suppose that a good synopsis was given.

Books and Periodicals.

STORIES FOR STORMY SUNDAYS. A Collection of Tales for Young Folks. Reprinted from the "Ave Maria." Boston: Thomas B. Noonan & Co. 1885.

Among the many excellent stories and storybooks that have been published for the entertainment and instruction of children, we think these "Stories for Stormy Sundays" entitled to the first place. A careful and judicious selection has been made from the beautiful tales that have appeared in the "Youth's Department" of that sterling periodical the Ave Maria. These have been collected together and reproduced in a neat little octavo book of some 300 pages, gotten up by the publisher in the best and most attractive style. The book, notwithstanding its elegant appearance, its fine paper, large, clear type, entirely free from typographical errors and blurs, is sold at the low price of 50 cents per copy. We might add that Noonan & Co., in regard to price and style of publication, have set a good example for other Catholic publishers.

ABBREVIATED LONGHAND. By Wallace Ritchie. Price, 25 cents.

SUGGESTIONS IN PUNCTUATION AND CAPITAL-IZATION. Specially Designed for the Use of Typewriter Operators. Price, 25 cents.

The first of these two useful little books (both are published by the Hall Typewriter Agency, Chicago) gives a brief method of longhand writing on the phonetic system, with most of the vowels omitted, and with a few arbitrary contractions for special terms, words, and phrases. There is no allusion to the common and very useful system of phrasing, however, by which several frequently recurring words can by written together, as in phonography, without lifting the pen,—such phrases, for instance, as "ulb," "Ilbthr," "fudnt," etc., for "You will be," "I will be there," "If you do not," etc. Otherwise, Mr. Ritchie's little manual is an excellent one.

The other little manual, "Suggestions on Punctuation," illustrates the correct method of using points by examples—a very good way, and the examples are felicitously chosen or prepared. The book is not so complete, however, as some others.

—St. Nicholas for March opens with a frontispiece picture of the "Inauguration of President Garfield," to illustrate this month's installment of "Among the Law-makers," in which the boy-page tells also of General Grant's second inauguration, and compares these with the inaugurations of Presidents George Washington and Thomas Jefferson. This is of special and timely interest to all

patriotic American boys and girls. Another attractive series, entitled "The Children of the Cold," is started, to take the place of "Davy and the Goblin," who make their farewell bow, and end their "believing voyage" in this number. The new series, while scarcely less wonderful, is quite true, and in it Lieut. Schwatka, who has spent several years living among the Eskimo in their own homes, relates the many interesting things he knows about child-life in the Arctic Circle. There are numerous other stories, sketches and poems.

—The beginning of the month brings to our table the February number of that bright, entertaining and ever-popular magazine, the Ave Maria. The number opens with Dr. John Gilmary Shea's sketch of a new American Saint, to which we have already called attention as being one of the most valuable, as it is the most recent, contributions to American Catholic literature. Another excellent article is entitled." The 'Hail Mary' a Compendium of All the Graces and Privileges of the Blessed Virgin Mary," in which, after the model laid down by the Angelic Doctor, the various parts of the Angelical Salutation are explained with reference to the extraordinary graces and privileges of the Queen of Heaven. "The Confession of a Converted Minister" will be found to be an interesting and edifying narrative of the manner in which one soul was led into the "true An article entitled "Go to Joseph" presents appropriate reading with which to introduce the month consecrated to the august Foster-Father of Jesus. Under the caption "Treasured Words," a pleasing paper is contributed by Miss Donnelly on the Supremacy of the Pope. Christian Reid, who is deservedly classed amongst the foremost novelists of the day, continues through this number her beautiful story, entitled "A Child of Mary." There are numerous other articles well worth reading, besides the usual timely "Notes" on Catholic topics together with choice poetical contributions. The "Youth's Department" is well filled with instructive and interesting reading for youthful minds.

Local Items.

- -March came in like a lion.
- -The crisis is past; the country's saved; hurrah!
- -Look out for the eclipse of the sun on the 16th.
- —Such weather as this would upset any system of prognostication.
- —The new choir acquitted itself very creditably Thursday morning.
- —The St. Thomas Academy will hold their public disputation to-morrow evening.
- —There is a unique character among the rôles of the Columbian play. Look out for it, as it is a "daisy."
- —The Surveying Class will soon begin their peregrinations,—that is, when the country roads become passable.

- —Notice.—Students sending clothing to the tailor-shop for repairs should see that the articles are properly numbered.
- —Now is the time when the muscular young man gazeth upon his shape and cheweth upon his chances of getting into a boat crew.
- —Since the Captains for the crews have been chosen, the gymnasium apparatuses are liberally patronized by the athletes of sea-faring propensities.
- —Master W. McPhee, assisted by F. Crotty and J. Ernest, in the name of the Minims, read a most touching farewell address to the beloved Founder previous to his departure for Europe.
- —To-day the members of the Philosophy Class, and consequently of the St. Thomas Aquinas Academy, celebrate the feast of their patron, the "Angelic Doctor," by a day of special "rec."
- —"Dickie" wants to know if the inhabitants of Mars could see the display of fireworks at Washington, last Wednesday evening. We can tell better when our Astrologer hands in his March report.
- —The regular meeting of the Philodemic Association has been postponed until next Wednesday, the 11th inst., when the question "Resolved, that the United States Should Possess a Standing Navy," will be debated.
- —A large audience listened to Rev. Father Zahm's lecture on "Science and Religion," Sunday evening. It appears in another column, and those reading it will find it both instructive and interesting.
- —Preparations are being made for a grand Shakesperian entertainment to be given on the 22d of April, in which all our local tragedians will participate. It is intended to make the event the most distingué and prominent of the year.
- —Wednesday evening, Rev. President Walsh distributed premiums to Masters B. Morrison, F. Long and C. Ruffing. Equal honor belongs to Masters Remish, Shaw, R. Morrison, Mullane, J. Kelly, Luther, Arts, Tewksberry, and Cooper.
- —The Inauguration of President Cleveland was duly celebrated by a joyous *sociale* in the Seniors' Reading-rooms. The Seniors' orchestra discoursed sweet music in connection with the festivities, and added not a little to the pleasure of the occasion.
- —The Astronomy Class were out star-gazing this week. A—— couldn't understand the cause of the sudden abnormal change in the heavens as seen through the telescope. He afterwards found that it was owing to the transit of another body; to wit—Pap's plug hat.
- —The statue of St. Joseph in St. Edward's Hall is beautifully decorated during this present month of March, and the Minims, in accordance with a pious Catholic custom, engage in special practices of devotion in honor of the glorious Patron of the universal Church.
- —A telegram received from New York, last Wednesday, informed us that Very Rev. Father General Sorin had arrived safe, and, in company

- with Bishop Dwenger, had embarked on the steamship Aurania. Pleasant be the winds and waves till the good ship arrives safely in port!
- —Science is making a dreadful onslaught on unsuspecting felines around here. The ghosts of these arseniced animals will rise in a body and haunt the dreams of each member of the Senior Class some "stilly" night; and assail their ears with mew-sick-al sounds.
- —The members of the Faculty waited upon Very Rev. Father General Sorin, last Monday morning, to wish him "God-speed" and "safe journey." They were represented on the occasion by Prof. Hoynes, whose address was responded to by the Very Rev. Father in a very feeling manner.

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- —A large photograph of the Bishops of the late Plenary Council of Baltimore has been placed in the College parlor. The picture is of extraordinary dimensions as a photograph, being about 50 inches by 40. The groups are very well taken, and the whole reflects credit on the artist, Brendan, of Baltimore.
- —The University Baseball Association will be re-organized this month. It is safe to say that there will be excellent nines in the field this season, and that we will see some splendid playing. It must be remembered by the players that every game counts this season, as it decides the champion-ship of '85.
- —The new Law Library is being frescoed and will soon be ready for occupancy. Elegant desks and benches and other appointments give it the appearance of a court room. Prof. Hoynes has been to Chicago during the past week, and has purchased a number of standard volumes and late reports which will be placed in order.
- —The 12th and 13th regular meetings of the Columbian Literary and Debating Club took place Feb. 7th and 24th respectively. W. Cartier read a well-written criticism on the previous meeting; Masters J. Troy, M. White and C. Duffin, were elected members, after which the parts in the drama of "Robert Emmett" were assigned to each member.
- —The Junior societies were treated to an able and eloquent discourse on the evening of the 1st inst. by Rev. Father O'Brien. The Rev. Father spoke on the subject of "Temperance," and for upwards of an hour enchained the attention of his youthful auditors. His remarks were instructive, and made a deep and, it is believed, lasting impression.
- —The other day, as we were gazing thoughtfully upwards in search of an idea, we observed an individual seated on the head of the statue on the dome. We wondered what could induce him to seek for fresh air at that dizzy altitude, and hastened to inquire the reason of the strange event. We learned that he was making some necessary repairs on the electric crown.
- The 4th regular meeting of the Sorin Literary and Dramatic Association, was held in St. Ed-

ward's Hall on Tuesday, March 3d. Compositions on different subjects were read by the following members: C. O. Inderrieden, F. Cobbs, S. Shöneman, J. Boos, G. Landenwich, F. Piel, H. Blakeslee, W. Henry, F. Salman, F. Rugee, C. Campau, F. Peck. Prof J. F. Edwards occupied the chair, and by a vote of the members elected C. Campau and D. Sweet to membership.

The 15th regular meeting of the St. Cecilia Philomathean Association took place Wednesday evening, March 4th. The reading of essays consumed most of the time of the meeting. Essays were read by J. Courtney, on "Discoverers"; E. Porter, on "Dramatists"; E. Darragh, on "Military Men"; V. Morrison, on "The Feudal System"; S. O'Brien and C. Mason, on "Inventors." C. Stubbs closed the exercises with a creditable criticism on the previous meeting. Public readers for this week are: E. Ewing, L. Grever, W. Mulkern, V. Morrison, E. Porter, H. Sedberry, and F. Hagenbarth.

-The 12th and 13th regular meetings of the St. Stanislaus Philopatrian Association took place February 9th and 23d respectively. The Mootcourt was the principal exercise, in which the following took part: Masters Tarrant, Tewksberry, Luther, Schmauss, F. Garrity, W. Houlihan, Donnellan, R. Morrison, W. Stange, M. O'Kane, Mullane, Ratigan, H. Ackerman, W. Grimes, W. Morrison, D. Cartier, and A. Hoye. The trial was a lively one, and excited a great deal of interest. Selections were then given by M. O'Kane, C. Senn, W. Devine, E. Amoretti, Rose, M. Luther, W. Baur, Donnellan, A. Hoye, W. Ratigan, Mullane, Grimes, R. Morrison. Master H. Ackerman closed the exercises with a very nice German ballad.

-In the University Moot-court—Judge Hoynes presiding—the case of A. J. Browne, vs. the C. & G. T. R.R. was called on the 28th ult. T. E. Callahan appeared for the plaintiff, J. Conlon for the defense. A jury, composed of Messrs. T. Sheridan, J. D. Reach, J. Kleiber, S. Murdock and A. Browne was impannelled. J. D. Wilson acted as clerk, and A. J. Ancheta as reporter. The witnesses for the prosecution were J. J. Conway and F. Burke; for the defense, H. A. Steis and P. J. The case was interesting and well conducted throughout. This is the first case in which pleadings were filed and everything done in accordance with the exact formula of the Circuit Court. At 9.30 p. m., the Court announced that the time for adjournment had arrived and that the case would be continued until next week. Rev. Fathers Walsh, O'Brien, Regan, Prof. Stoddard, and a number of students were present.

—A MARCH IDYLL.—He appeared early on the morning of the fourth day; his face bore that expression which is the result of long, patient watching and anxious expectation. He said: "I do not want office, only let me have 'rec'!" But "the Powers that be," said: "Nay, my reckless youth, Minerva hath other things in store for thee; return, and act well the part assigned thee." He labored

diligently until the sixth hour, when he again came up serenely, saying: "For four and twenty years have I wandered in outer darkness; let me rejoice with the elect." But again the Powers spoke, saying: "Virtue bringeth its own reward. He that asketh much receiveth little. Guard well that which thou hast, lest, in striving for too much, thou loseth all." And he that hath asked turned him around and hied him back unto whence he had come, saying: "Verily hath the Oracle spoken these things wisely."

-The Directors of the Lemonnier Library acknowledge, with many thanks, the receipt of the following gifts: from the Mother Superior of the Ursuline Monastery, Quebec, The Life of the Venerable Mother Mary of the Incarnation, Joint Foundress and First Superior of the Ursulines of Quebéc; Life and Photograph of Madame de la Peltric, (Magdalen de Chauvigny), Foundress of the Ursuline Convent, Quebec. From the Hon. Charles Thibault, of Montreal, Biography of Sir Charles Tupper, High Commissioner of Canada to England, by Charles Thibault, Advocate and Publicist; Biographie de Charles Thibault, Ecrit par L. L., Suivie de son Discours Prononcé aux Fêtes des Noces d'Or de la Saint-Jean-Baptiste, à Montreal, le 27 Juin, 1884, sur la Croix, l'Epée et la Charrue, ou Les trois Symboles du Peuple Canadien. From Mr. J. N. Breen, of Loogootee, Ind., a gift of \$5.00. From Mr. T. Delacœur, of Maynard, Mass., a gift of \$1.00.

—In Memoriam D. Votoscat.—Time, with his unyielding scythe, moves onward, sweeping down alike the withered shrub and the pure, bright flower. Grasping in his onward march whatever suits his fancy, he leaves us to realize the extent to which we are creatures of circumstances. Science, a younger daughter of Time, attempts to solve for us the problems of Life and Death: marching along with her parent, she observes whatever pleases her, and quietly collects and preserves specimens from the various points of her path. Without commanding or entreating Time, she sometimes whispers with averted eyes some little suggestion to her heartless father; and, without demanding, or, perhaps, expecting attention, she does not always speak in vain. Time has long known this famed seat of learning, and Science is constantly making more and more audacious attempts to find in it a welcome abode; she has, at last, in one desperate stroke, forestalled her sire, and now glories securely in her conquest. She has snatched from the grasp of Time a young and innocent life: she has taken to herself the supreme right of her parent, and has passed and executed a judgment of death. To those who mourn the loss of this untarnished life, only a word can we say: the departed rests piece-fully beyond the reach of their tears, after a brief but well-spent life. After death was seen the value, the intricacy and the mystery of this quick-passed life. We fervently sympathize with the various friends in their grief, and, with them, waft after the departed in fullest bounty the wish of—Requies, CAT!

—The Boat Club held a meeting on the 26th ult., for the purpose of re-organizing and electing new members. The officers elected are as follows: Director, Rev. Father Walsh; Assistant Director, Rev. J. M. Toohey; President, Rev. M. Regan; Commodore, J. Guthrie; Treasurer, H. A. Steis; Recording Secretary, F. H. Dexter; Corresponding Secretary, A. Brown; Captains, T. J. McKinnery and P. J. Goulding. The crews will be selected as soon as navigation opens. Resolutions in reference to the management of the crews and the choice of substitutes were placed before the Association by Mr. Steis, and were adopted. They are as follows:

Resolved—1st That it shall be the duty of the captains to choose their crews for the June race as soon as practicable; also to choose as many substitutes as may be deemed necessary.

2d. In case of a vacancy in one of the original crews the captain of same will be restricted to the taking of a regu-

larly chosen substitute to fill such vacancy.

3d. Within ten days after choice, each captain shall file with the judge of the races, a statement containing the names of the men of his crew, and all substitutes chosen; said statement to be signed by each captain.

4th. In case of non-compliance with any one, or all, of the foregoing agreements, the captain so acting shall forfeit all

claim to row for the gold anchors.

The following gentlemen were elected to membership, after satisfying the usual requisites: Messrs. D. Byrnes, L. Trepannier, W. Coghlin, M. Burns, A. Smith, A. A. Gordon, J. Waggoner, J. Riley, T. Ryan, J. McMillian, and W. Jess.

-Last Sunday evening, Rev. President Walsh met the Juniors in their hall, and entertained them with instructive remarks on "politeness and reading." Concerning politeness, he said, among other things, that there is as much cause for emulation in politeness as there is in any other branch of education. No one can be considered educated without it. An ill-mannered man, though he be book-learned and wise, is looked upon as a boor, and as more in his place in a corner of a library or readingroom, rather than in the company of his fellowmen. In regard to reading, he said that a student should go forth from college a well-read, as well as a polite man; he should seek to glean a rich fund of useful and varied information from books, even of amusement, if not of absolute instruction. However, he must not neglect to discriminate. By bearing in mind this advice of Lord Bacon "Taste some books, swallow others, and chew and digest others," he will be enabled to pursue a a highly advantageous course of reading. The poet Coleridge, speaking of readers, compares some to jelly-hags, because they suffer all the goodness and sweetness of what they read to pass by unnoticed, whilst they retain only the filth and dregs; others to sponges, because they absorb indiscriminately and soon give off again what they read, but it is sure to be much more filthy; others again to hour-glasses, because what they read soon departs and leaves no traces behind. A fourth class he compares to the diligent miners who separate the gold from the dross. He spoke also in terms of severity against the abominable trashy novels published nowadays, and he compared those who preferred the reading of this trash instead of works selected from the best of libraries to a person who preferred the company of street-arabs, boot-blacks and stable-boys to associating with the members of select society.

Roll of Honor.

SENIOR DEPARTMENT.

Messrs. Ancheta, Browne. Bates, Becerra, Burns, V. Burke, F. Burke, Callaghan, Conlon, Wm. Collins, Chapin, Crawford. F. Combe, Carbajal, Cartier, De Groot, Dwan, Dexter, Dolan, Estrado, Freyermuth, Finley, Goulding, A. A. Gordon, Goodfellow, Horn, Hamlyn, Halligan, Howard, Hotaling, Hausberg, Hasson, Hutchison, Johnston, Jess, Iones, Kolars, Kleiber, Kavanagh, Kevs, Livingston, McMillian McKinnery, McGuire, McErlain, McCarney, McMurray Varion, Murdock, Miller, Morrison, Jno. Murphy, O'Kane, J. P. O'Donnell, O'Connell, H. Paschel, C. Paschel, Perley, Padilla, P. Prudhomme, J. Prudhomme, C. Porter, Rothert Ramsay, Rahilly, Ruppe, T. Ryan, Roth, E. Riley, G. Smith, A. Smith, Sheridan,* Steis,* Saviers, Schultz, Jno. Troy, Trepanier,* J. S. Troy, W. Williams, White, Zeitler.

JUNIOR DEPARTMENT.

Masters Arts, Adams, Borgschulze, Byerly, Benner, Baur, Berthelet, Burrett, Congdon, Cummings, Clarke, Colina, Chamberlain, Cavaroc, Cleary, Chute, Dillon, Dempsey, Dorenberg, Dougherty, Donnellan, Daly, Darrah, Day, Devine. Ewing, Finckh, Fisher, Fehr, Flood, Frain, Grunsfeld. L. Grever, F. Garrity, Hoye, Harris, Howard, Hibbeler, Holman, Houlihan, Hagenbarth, Johnson, Kelly, Kegel. Kenny, Devin, Luther, Loya, Lewis, Martinez, Mulkern, B. Morrison, R. Morrison, Monschein, Myers, Mullane, Macke, Meehan, McGuire, Nester, Oxnard, O'Brien, O'Kane, Portillo, Prudhomme, Porter, Regan, Real, Rebori, Ruffing, Remish, Reynolds, Rogers, Robinson, Ryan, Stubbs, Senn, Sokup, Soden, F. Smith, Stange. Spencer. Schmauss, Scheunmann, Shaw, Sedberry, Thompson, Talbot, Wabraushek, Wagoner, Williamson, West, Zollars.

MINIM DEPARTMENT.

Masters Adams, Boos, Bunker, Berry, Bull, Barger, Blakeslee, Baker, Crotty, Campau, Cobbs, Carnahan, Chute, F. Dunford, G. Dunford, J. Doss, L. Doss, E. Doss, Ernest, T. Falvey, F. Falvey, E. Falvey, Grunsfeld, Grimes, Garber, Henry, Haney, Hopkins, C. Inderrieden, R. Inderrieden, S. Jones, J. Kelly, E. Kelly, Kellner, A. Kinty, J. Kinty, Landenwich, McPhee, McVeigh, McGill, McCourt, McNulty, McGuire, McNally, Murphy, Morgan, C. Mitchell, Moncada, Mason, Mooney, Nussbaum, Noonan, Nester, O'Kane, F. Peck, J. Peck, Piel, Piero, Paul, Perkins, Quill, Quinlin, Rugee, Ramsey, Salman, Sweet, Stone, Scherrer, Smith Shöneman, Williamson, Weston.

List of Excellence.

* Omitted last week by mistake.

COURSE OF MODERN LANGUAGES, FINE ARTS AND SPECIAL BRANCHES.

German—Messrs. W. Cartier, Darragh, Hamlyn, Hibbler, Wabraushek, Cleary; French—Messrs. Oxnard, Real, Cusack; Spanish—Messrs. C. Mason, Dexter, Padilla, Real, L. Kegel; Vocal Music—Messrs. P. O'Kane, Marion, Alvarez, Crawford, Ramsay, W. Devine, F. Garrity, Senn, M. O'Kane; Instrumental Music—Messrs. Gould, Austin, Shaw, G. Myers, H. Porter, C. Porter, Dolan, Padilla, Hausberg, M. O'Kane, Reynolds, L. Kegel, Ruffing; Drawing—Messrs. Crawford, Flood, F. Long, Portillo, Fehr, C. Mason, Real, Wabraushek, Martinez, Becerra, Sykes, L. Kegel; Elocution—Messrs. Ramsay, Dexter, Steis, Ancheta, A. Brown, H. Porter, Klieber, Howard, J. Garrity, Harris, Reynolds, C. Paschel, Mathers, Austin, Rahilly, Conlon, Stubbs, Mulkern, Saviers, Conway, Callahan, McKinnes, Byrnes, V. Burke, Hagenbarth, Monschein, H. Paschel, Dolan, Hotaling, Alvarez, Goulding Mulane, Reach, Jess, Hoye; German—J. Baur.

Saint Mary's Academy.

One Mile West of Notre Dame University.

—The Roman mosaic cross was drawn by M. Smith.

—The golden prize for excellent deportment in the Minim department fell to Ella Blaine. The "royal deputation" waited upon Very Rev. Father General, and at his venerable hands the prize was received.

—On the 25th ult., an anniversary Mass was offered for the repose of the soul of Sister M. Blanche. March 5th, the anniversary of the demise of the late Prefect of the Juniors,—Sister M. Rosa—was observed in the same pious manner, two Masses being offered for her; the Juniors and Children of the Holy Angels receiving Holy Communion for the same intention.

—The graceful arrangement of the stage for the French play was the work of the generous Miss Bruhn, kindly assisted by Miss Call. The thoughtful interest and free sacrifice of their recreation hours by the young ladies of the higher classes constitute a praiseworthy example to younger members of the Academy; for never is woman more womanly than when she performs acts of self-abnegation.

-At about half-past four p. m., on Sunday, the young ladies of all the departments-Senior, Junior and Minim-gathered in the Seniors' studyhall to receive the farewell visit of Very Rev. Father General Sorin. On behalf of the Academy, Miss Anna Murphy, in her charming mode of delivery, read an address prepared for the occasion, expressive of regrets at the long absence which his contemplated journey and voyage necessitates, and commending him to "Mary, Star of the Sea." Very Rev. Father thanked the young ladies, and said that he was going in their behalf, and that his prosperity and success depended upon them; that he might be absent six weeks or six months, in proportion to their fervor or their want of it. If they prayed well, the speedy and safe return wished him would undoubtedly be accomplished. If not, he would have to remain and wait their motion. He counted the Minims, and expressed his confidence in the efficacy of their prayers. He said that the reputation of St. Mary's Academy, as well as that of Notre Dame University, had reached Rome, and both institutions had been spoken of there for many years. Deep feelings at the thought of the venerable Founder of St. Mary's undertaking a voyage at this inclement season was marked on every face; and as he left the apartment, after bestowing his blessing on the kneeling groups around him, the cry "Bon voyage!" resounded on every side and re-echoed in every heart.

—A memorial card has been sent to the parents of Minnie Smith, a former Junior of St. Mary's. Garlands of flowers, made from the hair of the dear departed, grace the "In Memoriam," which is copied in gothic characters by the skilful hand

of Miss Lizzie Walsh. The lily, the rose and forget-me-not are represented in the garlands. By special request we insert below the

IN MEMORIAM:

I.

Flowers of memory,
Precious and fair,
Woven, loved Minnie,
Of thy soft, brown hair.

II.

Father and mother weep, Mourn at thy loss; Heaven, O help them To carry their cross!

III.

When they shall miss thy smile, Heaven soothe their pain; Angels remind them Our loss is thy gain.

ıv.

Flowers of memory,
Precious and fair,
Woven, loved Minnie,
Of thy soft, brown hair.

v.

Dear, for thy sake, are they; Breathe they of love Planted in hope on earth; Blooming above!

Roses and lilies, too,
Pure as thy lot,
Twined with, and blending with
Forget-me-not.

Thus art thou shrined, dear child, Shrined in each breast; Love crowns each thought of thee! Rest, loved one, rest!

The French Play.

The advantage of colloquial and dramatic representations over every other method in imparting facility, when the object is to acquire a foreign language, is beyond question. With this end in view, plays in the foreign tongues are, from time to time, taught during the recreation hour, daily devoted to conversations in those languages. The excellent rendering of "La Reine Mozab," by the Junior French pupils, on the 25th ult., the programme of which is appended, shows that the pains taken by the instructors have not been wasted. The remarks of the Rev. Father Fitte, of the University, who honored the young performers by his presence, were very encouraging; and he observed their evident, complete understanding, not alone of their respective parts, but of the entire play and the connection of the various rôles. He briefly recounted the plot of the piece, which is intended to impress an important lesson in filial devotedness. Rev. Father Saulnier—also a French gentleman, hence an able judge-endorsed the praises of his learned countryman. "Hélène de Valbrey," by her prayers and untiring exertions, aided by the generous co-operation of "Kadijah," the beautiful slave of "Queen Mozab," rescues her mother from imprisonment in the dungeon of the fierce African monarch. A spy of the Queen, "Nessouda," thwarts the plot of escape formed by "Kadijah"; but at the moment the cruel Mozah is triumphant, Rosine announces the victory of the French arms over the Algerians, and the freedom of Madame Valbrey is established—the prayer of her daughter is

Rev. Father Shortis expressed his warm satisfaction, and even surprise, at the rare perfection exhibited by the Juniors; also his regret, shared by all present, that such excellent acting could not be presented in a place more favorable-the impromptu scenes being incapable of affording the proper light, and, above all, that "distance which lends enchantment to the view." Though the room was ample, the audience was too near, and lights, necessarily at the sides, producing the disadvantage of cross-lights, which deprived the audience of the opportunity to enjoy the facial expression, which is so important an element of good elocution.

The merit of the Juniors, however, far from being lessened, was greatly enhanced by their marked success, notwithstanding the difficulties which would have abashed pupils less docile, less skilful, less self-possessed. The excellent performance of Hannah Stumer was praised by everyone: her modest, graceful dance, improvised to please the Queen; her tender sympathy for the elegant young lady whose mother was imprisoned, and whom, in the darkness and gloom of the cell, she guided by the light of her gem-like little lantern, compromising her own life, that she might liberate the prisoner, had accessories been less propitious, would have been enough to have made the play a success. The acting of Lillie Van Horn, Belle Snowhook, Clara Richmond, and Ellen Sheekey, was in every respect true to life. The haughty, imperious, barbarian queen left nothing for the spectator to desire; her acting was perfect. pure, clear, correct accent of Hélène de Valbrev was only equalled in its charm by the touching sweetness and filial devotedness portrayed, and the piety which in prayer gained the contest over her foes. Clara Richmond performed her part admirably; and the ready gracefulness, the faultless intonations, the unostentatious sweetness of the bosom friend of Miss Valbrey, had they been missed, would have seriously marred the beauty of the play. Ellen Sheekey, in her ill-concealed fury as the Algerian spy upon "Hélène de Valbrey" and "Kadijah," was, for a child, a master-piece of acting; and Ada Malbœuf, though of French descent, exhibited marked improvement in her mothertongue. Her part was well performed. Every one laughed at little Flora Johnson, as she vociferated, in ready order, the category of branches pursued by her at school.

The chief regret was the unavoidable absence of Very Rev. Father General, who, weatherbound at Notre Dame, could not risk the bad roads and sudden changes of weather, to accept the frequent and hearty invitations extended to him by the Juniors. However, it is a consolation to them to know that, by the unanimous voice of everyone present, they have not dishonored the beautiful

language of his native land. The following is the PROGRAMME:

"LA REINE MOZAB."

(Opéra comique en deux actes. La scène se passe en 1830, sur les côtes d'Afrique, à quelques lieues d'Alger.) Prologue.....H. Stumer

Personnages.

La Reine Mozab.....L. Van Horn Nessouda (sa favorite)...... E. Sheekey

Miss Marie Fuller, at the close of the entertainment, recited Miss Donnelly's touching poem, "My Lady President's Ball." The distinct utterance and vivid personation of the young lady was highly commended by the best judges.

Roll of Honor.

FOR POLITENESS, NEATNESS, ORDER, AMIABILITY, COR-RECT DEPORTMENT, AND OBSERVANCE OF RULES.

SENIOR DEPARTMENT.

Par Excellence-Misses M. Adderly, M. Bruhn, M. Blair, Brady, Bub, Cox, E. Call, Dunne. M. Ducey, A. Donnelly, E. Donnelly, M. Dillon, Fehr, Fuller, C. Ginz, B. Gove, E. Donnelly, M. Dillon, Fehr, Fuller, C. Ginz, B. Gove, C. Griffith, Gavan, A. Heckard, Hale, N. Keenan, Kearns, B. Kearney, Lange, Lauer, T. McSorley, Murphy, Newman, M. O'Halloran, O'Connell, Ramsey, Rose, Sharrette, Schuler, Schilling, L. Sheekey, C. Scully, Shea, Thornton, L. Walsh, E. Walsh, White, Walker. 2d Tablet—Misses Fitzpatrick, A. Gordon, A. Gordon, B. Heckard, L. Hutchinson, A. McSorley, McHale, B. Morrison, M. Scully, S. St. Clair, L. St. Clair.

JUNIOR DEPARTMENT.

Par Excellence—Misses M. Brown, S. Campeau, F. Herzog, L. Norris, C. Prudhomme, C. Richmond, G. Regan, E. Sheekey, G. Searls. G. Stadtler, B. Snowhook. M. Smith, L. Van Horn. 2d Tablet-Misses A. Keves, A. Malbouf, M. Murphy, M. McEwen, E. Preston, N. Quill. MINIM DEPARTMENT.

Par Excellence-Misses E. Blaine, E. Burtis, E. Chapin, M. Hopkins, E. Hammond, F. Johnson, M. Lindsey, D. Lee, B. Murray, F. Spencer, A. Schmauss, S. Van Fleet.

ART DEPARTMENT.

HONORABLY MENTIONED.

FIGURE-DRAWING.

2D CLASS-Misses A. English, Fuller, Fehr, Williams.

ELEMENTARY PERSPICTIVE.

3D CLASS—Misses S. Lang. McSorley, Fuller.

PAINTING IN WATER-COLORS. Misses C. Scully, Trask, Keyes, Stadtler, Richmond.

PAINTING ON CHINA.

Misses Williams; L. Van Horn.

OIL-PAINTING.

2D CLASS-Misses Sheekey, Heckard, Dunne.

3D CLASS—Miss A. Shephard.
2D. DIV.—Misses M. Munger, C. Kearney, E. Walsh, Addie Gordon, Alice Gordon, McHale, S. St. Clair.

GENERAL DRAWING.

SENIOR DEPARTMENT.

Misses E. Donnelly, A. Donnelly, C. Griffith, E. Walsh, M. Walker, Thornton, Schilling.

JUNIOR DEPARTMENT.

Misses G. Stadtler, E. Sheekey, L. Trask, A. Keyes, M. Cox. Johnson, McEwen, Quill, F. Hertzog, Prudhomme, M. Lindsey, Schmauss, Spencer, Allen, Murphy, Boyer, Preston, Chapin, Burtis, Lee, Barr, E. Blaine, Hammond.